REMARKS

Reconsideration of this application, as presently amended, is respectfully requested. Claims 1-2 are pending in this application. Claims 1-2 stand rejected.

Objection to the Abstract

The Abstract of the Disclosure was objected to because it includes the prohibited legal phraseology "means".

The Abstract has been replaced with a new Abstract that eliminates the term "means" throughout. Approval and entry of the new Abstract are respectfully requested.

Objection to the Title

The Title of the invention was objected to for not being descriptive. The Title of the invention has been replaced with a new Title which is believed to be clearly indicative of the invention to which the claims are directed. Approval of the new Title is respectfully requested.

Claim Rejections – 35 U.S.C. §102

Claims 1 and 2 are rejected under 35 U.S.C. §102(b) as being anticipated by **Atsushi** (JP 2002-209393). Claim 1 is rejected under 35 U.S.C. §102(e) as being anticipated by **Suzuki** (USP 6,776,489). For the reasons set forth in detail below, these rejections are respectfully traversed.

Atsushi discloses a fan motor drive circuit for driving a cooling fan for devices, such as a liquid crystal projector. According to **Atsushi**, "Vstb" shown in Fig. 2 indicates the driving voltage for a fan 30 with a slight increase in temperature within the unit. In this case, the fan 30 rotates at a low speed.

"Von" in Fig. 2 indicates the driving voltage for the fan 30 when there is a large increase in temperature within the unit. In this case, the fan 30 rotates at a high speed. Further, according to **Atsushi**, when starting the fan 30, the voltage applied to the fan is gradually increased during the period "Hx", as shown in Fig. 2. *However, at that time, the voltage applied to the fan 30 is raised to a value higher than Vstb, as is apparent from Fig. 2. Specifically, the voltage applied to the fan 30 is increased to a higher value than a minimum voltage actually needed to start rotation of the fan from its halted state.*

Unlike **Atsushi**, in accordance with the invention as recited in claims 1 and 2, a voltage to be applied to the cooling fan is gradually raised from a state where the cooling fan is stopped, when starting the cooling fan; and, the voltage to be applied to the cooling fan is set to a predetermined normal operating voltage when a detection circuit detects that the cooling fan starts to rotate in the process of gradually raising the voltage to be applied to the cooling fan.

As a result, in accordance with the invention recited in claims 1 and 2, when starting the fan, the voltage to be applied to the fan is gradually raised to *the minimum voltage actually needed* to start rotation of the fan from its halted state.

In summary, **Atsushi** does not disclose or suggest a detection means (or circuit) for detecting whether a cooling fan is stopped or is being rotated; and a second control means (or

circuit) for setting the voltage to be applied to the cooling fan to a predetermined normal operating voltage when the detection means detects that the cooling fan starts to rotate in the process of gradually raising the voltage to be applied to the cooling fan by the first control means, as recited in claims 1 and 2.

Suzuki discloses a system for temperature control of a polarization beam splitter, as shown in Figs. 5-7. A cooling fan 31 is used to control the temperature of the polarization beam splitter 11a under control of a temperature control circuit D, as shown in Fig. 5.

As shown in Fig. 6, the temperature control circuit D performs temperature control by starting rotation of the cooling fan 31 (S105). A first temperature sensor 33 detects the temperature of a portion of the polarization beam splitter 11a closer to the cooling fan 31 (S106), while a second temperature sensor 34 detects the temperature of a portion of the polarization beam splitter 11a closer to a radiating member 32 (S103, S104).

When the temperature detected by the first temperature sensor 33 is equal to or lower than the temperature detected by the second temperature sensor 34 (S107), the temperature control circuit D reduces the rotation number of the cooling fan 31 to perform control for increasing the temperature of the portion of the polarization beam splitter 11a closer to the cooling fan 31 (S108).

However, when the temperature detected by the first temperature sensor 33 is above the temperature detected by the second temperature sensor 34, the temperature control circuit D increases the rotation member of the cooling fan 31 to perform control for reducing the

temperature of the portion of the polarization beam splitter 11a closer to the cooling fan 31 (S109).

Thus, **Suzuki** controls the rotation of the cooling fan based on the temperature difference of two temperature sensors.

Unlike the claimed invention, **Suzuki** does not disclose or suggest the type of control of a cooling fan, as recited in claims 1 and 2, wherein a first control means gradually raises a voltage to be applied to the cooling fan when the cooling fan is started, and a second control means sets the voltage to be applied to the cooling fan to a predetermined normal operating voltage when a detection means detects that the cooling fan starts to rotate in the process of gradually raising the voltage to be applied to the cooling fan by the first control means.

In particular, **Suzuki** does not control the operating voltage applied to a cooling fan based on a detection that the cooling fan starts to rotate. **Suzuki** simply teaches controlling the cooling fan based on temperature.

A rejection under §102 requires that the prior art reference must disclose each and every feature recited in the claims. For the reasons set forth above, it is respectfully submitted that neither **Atsushi** nor **Suzuki** disclose each and every feature recited in claims 1 and 2. Therefore, the rejections under §102 are improper and should be withdrawn.

CONCLUSION

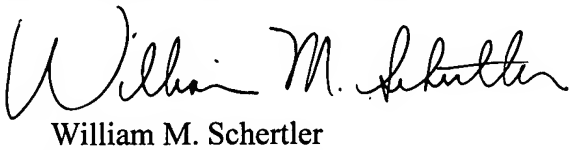
In view of the foregoing amendments and accompanying remarks, it is submitted that all pending claims are in condition for allowance. A prompt and favorable reconsideration of the rejection and an indication of allowability of all pending claims are earnestly solicited.

If the Examiner believes that there are issues remaining to be resolved in this application, the Examiner is invited to contact the undersigned attorney at the telephone number indicated below to arrange for an interview to expedite and complete prosecution of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP



William M. Schertler
Attorney for Applicants
Registration No. 35,348
Telephone: (202) 822-1100
Facsimile: (202) 822-1111

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